

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/535,164
Source: _____
Date Processed by STIC: _____

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/535, 164

CRF Edit Date: 8/28 2006
Edited by: DM

___ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

___ Corrected the SEQ ID NO. Sequence numbers edited were:

___ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

___ Deleted: ___ invalid beginning/end-of-file text ; ___ page numbers

___ Inserted mandatory headings/numeric identifiers, specifically:

___ Moved responses to same line as heading/numeric identifier, specifically:

___ Other: Inserted Title of Invention



IFWO

RAW SEQUENCE LISTING

DATE: 08/29/2006

PATENT APPLICATION: US/10/535,164

TIME: 15:41:29

Input Set : N:\ANJUM\10535164.raw

Output Set: N:\CRF4\08292006\J535164.raw

3 <110> APPLICANT: BENTWICH, ITZHAK
 5 <120> TITLE OF INVENTION: Bioinformatically detectable of Novel Regulatory genes and
 thereof.
 7 <130> FILE REFERENCE: 050992.0200.PCUS13
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/535,164
 C--> 9 <141> CURRENT FILING DATE: 2005-05-16
 9 <160> NUMBER OF SEQ ID NOS: 548156
 11 <170> SOFTWARE: PatentIn version 3.3
 13 <210> SEQ ID NO: 1
 14 <211> LENGTH: 73
 15 <212> TYPE: RNA
 16 <213> ORGANISM: Human
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 25 <211> LENGTH: 62
 26 <212> TYPE: RNA
 27 <213> ORGANISM: Human
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 32 uu 62
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 36 <211> LENGTH: 78
 37 <212> TYPE: RNA
 38 <213> ORGANISM: Human
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 47 <211> LENGTH: 78
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 54 agaaaucucc caguuuuu 78
 57 <210> SEQ ID NO: 5
 58 <211> LENGTH: 85
 59 <212> TYPE: RNA
 60 <213> ORGANISM: Human
 62 <400> SEQUENCE: 5
 63 aaaaucauaa ggacaaaaau cugcugaugc ugugagauaa aaccgaugau ucugcaguca 60
 65 auuuguuuug uaccugugug guuuu 85
 68 <210> SEQ ID NO: 6

RAW SEQUENCE LISTING

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Input Set : N:\ANJUM\10535164.raw

Output Set: N:\CRF4\08292006\J535164.raw

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87 gcaauaucaa ggaaggcag gcgugauggc uuauuuuuu 100
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92 <212> TYPE: RNA
93 <213> ORGANISM: Human
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115 <213> ORGANISM: Human
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126 <213> ORGANISM: Human
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RAW SEQUENCE LISTING

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PATENT APPLICATION: US/10/535,164

TIME: 15:41:29

Input Set : N:\ANJUM\10535164.raw

Output Set: N:\CRF4\08292006\J535164.raw

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161 <400> SEQUENCE: 14
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211 <210> SEQ ID NO: 19
212 <211> LENGTH: 96
213 <212> TYPE: RNA
214 <213> ORGANISM: Human
216 <400> SEQUENCE: 19
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RAW SEQUENCE LISTING

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Input Set : N:\ANJUM\10535164.raw

Output Set: N:\CRF4\08292006\J535164.raw

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245 <211> LENGTH: 90
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247 <213> ORGANISM: Human
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258 <213> ORGANISM: Human
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269 <213> ORGANISM: Human
271 <400> SEQUENCE: 24
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278 <211> LENGTH: 98
279 <212> TYPE: RNA
280 <213> ORGANISM: Human
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290 <212> TYPE: RNA
291 <213> ORGANISM: Human
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RAW SEQUENCE LISTING

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TIME: 15:41:29

Input Set : N:\ANJUM\10535164.raw

Output Set: N:\CRF4\08292006\J535164.raw

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333 <211> LENGTH: 103
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335 <213> ORGANISM: Human
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340 aaauuuuuau gaagccaauu ucccugcaaa ugucauggau guu                                103
343 <210> SEQ ID NO: 31
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366 <211> LENGTH: 104
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376 <210> SEQ ID NO: 34

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/535,164

DATE: 08/29/2006
TIME: 15:41:30

Input Set : N:\ANJUM\10535164.raw
Output Set: N:\CRF4\08292006\J535164.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:17654; N Pos. 20
Seq#:19916; N Pos. 18
Seq#:52020; N Pos. 28
Seq#:59474; N Pos. 8,9,10
Seq#:63151; N Pos. 2
Seq#:63152; N Pos. 2
Seq#:77314; N Pos. 6
Seq#:78810; N Pos. 29
Seq#:110924; N Pos. 28
Seq#:125723; N Pos. 29
Seq#:128279; N Pos. 31
Seq#:148177; N Pos. 18
Seq#:173057; N Pos. 31
Seq#:183537; N Pos. 22
Seq#:207018; N Pos. 22
Seq#:217308; N Pos. 5
Seq#:219323; N Pos. 11,19
Seq#:225290; N Pos. 30
Seq#:238061; N Pos. 27
Seq#:260898; N Pos. 3
Seq#:260899; N Pos. 3,4,5
Seq#:269038; N Pos. 8
Seq#:274697; N Pos. 28
Seq#:279130; N Pos. 27
Seq#:280135; N Pos. 4
Seq#:288191; N Pos. 23
Seq#:304070; N Pos. 22
Seq#:317086; N Pos. 32
Seq#:318088; N Pos. 4
Seq#:329136; N Pos. 30
Seq#:332252; N Pos. 27
Seq#:336402; N Pos. 32
Seq#:341837; N Pos. 31
Seq#:351747; N Pos. 13
Seq#:370659; N Pos. 17
Seq#:372265; N Pos. 30
Seq#:381062; N Pos. 30
Seq#:382821; N Pos. 21
Seq#:383437; N Pos. 29
Seq#:385816; N Pos. 7
Seq#:391072; N Pos. 2,27
Seq#:407387; N Pos. 31
Seq#:416031; N Pos. 24
Seq#:418467; N Pos. 31

RAW SEQUENCE LISTING ERROR SUMMARY

DATE: 08/29/2006

PATENT APPLICATION: US/10/535,164

TIME: 15:41:30

Input Set : N:\ANJUM\10535164.raw

Output Set: N:\CRF4\08292006\J535164.raw

Seq#:436086; N Pos. 20,28

Seq#:448669; N Pos. 4

Seq#:465548; N Pos. 23,31

Seq#:466876; N Pos. 24

Seq#:471539; N Pos. 2,3,4

Seq#:471540; N Pos. 2,5

Seq#:482820; N Pos. 1

VERIFICATION SUMMARY

DATE: 08/29/2006

PATENT APPLICATION: US/10/535,164

TIME: 15:41:30

Input Set : N:\ANJUM\10535164.raw

Output Set: N:\CRF4\08292006\J535164.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:176048 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17654 after pos.:0
L:196412 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19916 after pos.:0
L:485354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52020 after pos.:0
L:552446 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59474 after pos.:0
L:585545 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63151 after pos.:0
L:585560 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63152 after pos.:0
L:713024 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:77314 after pos.:0
L:726494 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:78810 after pos.:0
L:1015526 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:110924 after pos.:0
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L:1574747 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:173057 after pos.:0
L:1669073 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:183537 after pos.:0
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Input Set : N:\ANJUM\10535164.raw

Output Set: N:\CRF4\08292006\J535164.raw

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**Raw Sequence Listing before editing,
for reference only**



IFWO

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/535,164

DATE: 08/24/2006

TIME: 16:38:51

Input Set : F:\200.PCUS13 (110084).txt

Output Set : N:\CRF4\08242006\J535164.raw

Cp 9-6,7)
Does Not Comply
Corrected Diskette Needed

Cp 9-1)

*Wrong Title of Official
Title of Invention Submitted:- Bio-Infor
matically detectable of Novel Regulatory
genes and uses thereof.*

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3 <110> APPLICANT: BENTWICH, ITZHAK
5 <120> TITLE OF INVENTION: Patent 12 May05
7 <130> FILE REFERENCE: 050992.0200.PCUS13
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/535,164
C--> 9 <141> CURRENT FILING DATE: 2005-05-16
9 <160> NUMBER OF SEQ ID NOS: 548156
11 <170> SOFTWARE: PatentIn version 3.3
13 <210> SEQ ID NO: 1
14 <211> LENGTH: 73
15 <212> TYPE: RNA
16 <213> ORGANISM: Human
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21 uuaacaacuu uuu 73
24 <210> SEQ ID NO: 2
25 <211> LENGTH: 62
26 <212> TYPE: RNA
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29 <400> SEQUENCE: 2
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32 uu 62
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43 ugcaaguuuu cauguuuu 78
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58 <211> LENGTH: 85
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RAW SEQUENCE LISTING

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Input Set : F:\200.PCUS13 (110084).txt

Output Set: N:\CRF4\08242006\J535164.raw

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69 <211> LENGTH: 116
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73 <400> SEQUENCE: 6
74 aaaaugcaca ucaccaccua cuugaguguu gaggaucaa uuaguuaaug uacuucaaa 60
76 aaucauguag uaaaugcuca guagugugug ugugugugug ugugugugug uauuuu 116
79 <210> SEQ ID NO: 7
80 <211> LENGTH: 100
81 <212> TYPE: RNA
82 <213> ORGANISM: Human
84 <400> SEQUENCE: 7
85 aaacagacug ggccaauguc cacaagaau uccuggucag caccaccgau guccaaaggu 60
87 gcaauaucaa ggaagggcag gcgugauggc uuauuuguuu 100
90 <210> SEQ ID NO: 8
91 <211> LENGTH: 72
92 <212> TYPE: RNA
93 <213> ORGANISM: Human
95 <400> SEQUENCE: 8
96 aaacaucauu uaaaaauguc uucagcauuu uuugaauaga cguauucaaa cauauucuga 60
98 acauugaugu uu 72
101 <210> SEQ ID NO: 9
102 <211> LENGTH: 77
103 <212> TYPE: RNA
104 <213> ORGANISM: Human
106 <400> SEQUENCE: 9
107 aaagaggugu agaaucuggg uugguccuuc aaggcagcuc auugcagcua cuggccucca 60
109 gugaaacagg ucucuuu 77
112 <210> SEQ ID NO: 10
113 <211> LENGTH: 73
114 <212> TYPE: RNA
115 <213> ORGANISM: Human
117 <400> SEQUENCE: 10
118 aaagccacag guaagaauuc ucauuugcua aaauacaug auuggugcaa auuaugccua 60
120 ugacauuggc uuu 73
123 <210> SEQ ID NO: 11
124 <211> LENGTH: 79
125 <212> TYPE: RNA
126 <213> ORGANISM: Human
128 <400> SEQUENCE: 11
129 aaaggaugaa aagguggugu cauguuuugg ggagaauuu acuucucaaa uggaaaauugc 60
131 acuuuuugcu gaauccuuu 79
134 <210> SEQ ID NO: 12
135 <211> LENGTH: 87
136 <212> TYPE: RNA
137 <213> ORGANISM: Human
139 <400> SEQUENCE: 12
140 aaaggcccuu ccgguuuugg ucaaggaugg uagcccaacg uucacauucu uaugaaccag 60
142 guaaccctaa ggucgggacg gguuuuu 87
145 <210> SEQ ID NO: 13

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Input Set : F:\200.PCUS13 (110084).txt

Output Set: N:\CRF4\08242006\J535164.raw

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146 <211> LENGTH: 80
147 <212> TYPE: RNA
148 <213> ORGANISM: Human
150 <400> SEQUENCE: 13
151 aaaggggaga cuaaaaauuu gcuccaaugu caguucucua cagaugagaa ccaauacuac      60
153 agcaaguaag ucuugccuuu      80
156 <210> SEQ ID NO: 14
157 <211> LENGTH: 108
158 <212> TYPE: RNA
159 <213> ORGANISM: Human
161 <400> SEQUENCE: 14
162 aaagggugag auaauguucc cacaguguau cauuagugug augaguuuau cucuuuaaag      60
164 ccucacaacc ugcugauaug cugugguuuu ucuugguccu aucucuuu      108
167 <210> SEQ ID NO: 15
168 <211> LENGTH: 80
169 <212> TYPE: RNA
170 <213> ORGANISM: Human
172 <400> SEQUENCE: 15
173 aaaggugggu gcagaaucug uaugggaguu' caaaauccucu uuugugcuuc augccaauua      60
175 ccugcaguuu uacuaccuuu      80
178 <210> SEQ ID NO: 16
179 <211> LENGTH: 79
180 <212> TYPE: RNA
181 <213> ORGANISM: Human
183 <400> SEQUENCE: 16
184 aaagucuugu gauuuccucu caucuuiuag agauuccugc caaaaauucu accaagcaga      60
186 gauggaggag cucgacuuu      79
189 <210> SEQ ID NO: 17
190 <211> LENGTH: 79
191 <212> TYPE: RNA
192 <213> ORGANISM: Human
194 <400> SEQUENCE: 17
195 aaagucuugu gauuuccucu caucuuiuag agauuccugc caaaaauucu accaagcaga      60
197 gauggaggag cuugacuuu      79
200 <210> SEQ ID NO: 18
201 <211> LENGTH: 111
202 <212> TYPE: RNA
203 <213> ORGANISM: Human
205 <400> SEQUENCE: 18
206 aaaguauuuu uggguguaag uggugaauga augugaaggc cuaggacauu acuguacacu      60
208 acuauagacu uuauaaacau uguacacuaa gacuacacua aacauauuuu u      111
211 <210> SEQ ID NO: 19
212 <211> LENGTH: 96
213 <212> TYPE: RNA
214 <213> ORGANISM: Human
216 <400> SEQUENCE: 19
217 aaaugcaggu uuacaaagau gagcaggugg uggugauaaa ggauaaauac ccaaaggccc      60
219 guuaccauug gcuggucuua ccguggaccu ccauuu      96
222 <210> SEQ ID NO: 20

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RAW SEQUENCE LISTING

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Input Set : F:\200.PCUS13 (110084).txt

Output Set: N:\CRF4\08242006\J535164.raw

```

223 <211> LENGTH: 79
224 <212> TYPE: RNA
225 <213> ORGANISM: Human
227 <400> SEQUENCE: 20
228 aaauguggaa uacuggcagu guaaaagucu uaaacuaacu uaaaagcuaa caaaucaaag      60
230 gcacaguauu aacacauuu                                         79
233 <210> SEQ ID NO: 21
234 <211> LENGTH: 78
235 <212> TYPE: RNA
236 <213> ORGANISM: Human
238 <400> SEQUENCE: 21
239 aaauuuuucc ucuaauuugc augaaaggac aagacacugu uaugcccugu ccuaaaugug      60
241 aagacagagg uugaauuu                                         78
244 <210> SEQ ID NO: 22
245 <211> LENGTH: 90
246 <212> TYPE: RNA
247 <213> ORGANISM: Human
249 <400> SEQUENCE: 22
250 aaauuuuugg gggagcgggg gaaggaguua augaaacugu auugcacaau gcucugauca      60
252 auccuucuuu uucucuuuug ccacaaauu                                         90
255 <210> SEQ ID NO: 23
256 <211> LENGTH: 90
257 <212> TYPE: RNA
258 <213> ORGANISM: Human
260 <400> SEQUENCE: 23
261 aacaaggcaa aaauaucugcc uuauacaugu cacaaguaua aaagauugag agcuguauuu      60
263 agguaaaugc guuguauguu uugucauguu                                         90
266 <210> SEQ ID NO: 24
267 <211> LENGTH: 65
268 <212> TYPE: RNA
269 <213> ORGANISM: Human
271 <400> SEQUENCE: 24
272 aacaccccau gccaucugac agaugggaac cuaggggacc ccuucgucag agaaucuggg      60
274 agguu                                                         65
277 <210> SEQ ID NO: 25
278 <211> LENGTH: 98
279 <212> TYPE: RNA
280 <213> ORGANISM: Human
282 <400> SEQUENCE: 25
283 aacagacugg gccaaugucc acaaagaauu ccuggucagc accaccgaug uccaaaggug      60
285 caauaucaag gaagggcagg cgugauggcu uauuuguu                                         98
288 <210> SEQ ID NO: 26
289 <211> LENGTH: 94
290 <212> TYPE: RNA
291 <213> ORGANISM: Human
293 <400> SEQUENCE: 26
294 aacagagauu uaccgcauug uuucucagaa gcaaauguca gacagacgcg aaaaugacau      60
296 gucuccaagc aacaauugug uuccuauuca uguu                                         94
299 <210> SEQ ID NO: 27

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Input Set : F:\200.PCUS13 (110084).txt

Output Set: N:\CRF4\08242006\J535164.raw

```

300 <211> LENGTH: 72
301 <212> TYPE: RNA
302 <213> ORGANISM: Human
304 <400> SEQUENCE: 27
305 aacagaucuc aaagaucuca ucauuuuuga caaacaguca ucacaaagga ugagacagaa      60
307 uuugaaauug uu                                                                72
310 <210> SEQ ID NO: 28
311 <211> LENGTH: 97
312 <212> TYPE: RNA
313 <213> ORGANISM: Human
315 <400> SEQUENCE: 28
316 aacagggcuu cucgucauca cuugcagcgu gugagcuucc aaauaagccg ccauuucuuu      60
318 ggaaaacgca cgcacuuagg cauggcgauc uccuguu                                97
321 <210> SEQ ID NO: 29
322 <211> LENGTH: 82
323 <212> TYPE: RNA
324 <213> ORGANISM: Human
326 <400> SEQUENCE: 29
327 aacaguucug gccugagacc uggauugagc cuuggcagac uucuugucua aauguuggcc      60
329 auucagucuc aggccucug uu                                                                82
332 <210> SEQ ID NO: 30
333 <211> LENGTH: 103
334 <212> TYPE: RNA
335 <213> ORGANISM: Human
337 <400> SEQUENCE: 30
338 aacauacaga agaagcaagg aaauuacagu uagaggucac aacugcccga agccaguucu      60
340 aaauuuuuau gaagccaauu ucccugcaaa ugucauggau guu                            103
343 <210> SEQ ID NO: 31
344 <211> LENGTH: 77
345 <212> TYPE: RNA
346 <213> ORGANISM: Human
348 <400> SEQUENCE: 31
349 aacccagacg ccaugaaagc ugcauggccu ggagaaaaag cugaaccagg ccuuuuugga      60
351 ucuucaugcc cuggguu                                                                77
354 <210> SEQ ID NO: 32
355 <211> LENGTH: 81
356 <212> TYPE: RNA
357 <213> ORGANISM: Human
359 <400> SEQUENCE: 32
360 aacccagcag cucuccaugu ccacagcuga uuuccagagg auggaagaag ucaggaaacu      60
362 uggaacaccg cugcugaggu u                                                                81
365 <210> SEQ ID NO: 33
366 <211> LENGTH: 104
367 <212> TYPE: RNA
368 <213> ORGANISM: Human
370 <400> SEQUENCE: 33
371 aaccucaucc cagccaagag cuucuuuauu uuugucucau ucccucacca accuugggag      60
373 auagacugau uggaacuga aguucuaaga gguugaauug gguu                            104
376 <210> SEQ ID NO: 34

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RAW SEQUENCE LISTING ERROR SUMMARY
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:17654; N Pos. 20
Seq#:19916; N Pos. 18
Seq#:52020; N Pos. 28
Seq#:59474; N Pos. 8,9,10
Seq#:63151; N Pos. 2
Seq#:63152; N Pos. 2
Seq#:77314; N Pos. 6
Seq#:78810; N Pos. 29
Seq#:110924; N Pos. 28
Seq#:125723; N Pos. 29
Seq#:128279; N Pos. 31
Seq#:148177; N Pos. 18
Seq#:173057; N Pos. 31
Seq#:183537; N Pos. 22
Seq#:207018; N Pos. 22
Seq#:217308; N Pos. 5
Seq#:219323; N Pos. 11,19
Seq#:225290; N Pos. 30
Seq#:238061; N Pos. 27
Seq#:260898; N Pos. 3
Seq#:260899; N Pos. 3,4,5
Seq#:269038; N Pos. 8
Seq#:274697; N Pos. 28
Seq#:279130; N Pos. 27
Seq#:280135; N Pos. 4
Seq#:288191; N Pos. 23
Seq#:304070; N Pos. 22
Seq#:317086; N Pos. 32
Seq#:318088; N Pos. 4
Seq#:329136; N Pos. 30
Seq#:332252; N Pos. 27
Seq#:336402; N Pos. 32
Seq#:341837; N Pos. 31
Seq#:351747; N Pos. 13
Seq#:370659; N Pos. 17
Seq#:372265; N Pos. 30
Seq#:381062; N Pos. 30
Seq#:382821; N Pos. 21
Seq#:383437; N Pos. 29
Seq#:385816; N Pos. 7
Seq#:391072; N Pos. 2,27
Seq#:407387; N Pos. 31
Seq#:416031; N Pos. 24
Seq#:418467; N Pos. 31

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/535,164

DATE: 08/24/2006
TIME: 16:38:52

Input Set : F:\200.PCUS13 (110084).txt
Output Set: N:\CRF4\08242006\J535164.raw

Seq#:436086; N Pos. 20,28
Seq#:448669; N Pos. 4
Seq#:465548; N Pos. 23,31
Seq#:466876; N Pos. 24
Seq#:471539; N Pos. 2,3,4
Seq#:471540; N Pos. 2,5
Seq#:482820; N Pos. 1

VERIFICATION SUMMARY

DATE: 08/24/2006

PATENT APPLICATION: US/10/535,164

TIME: 16:38:52

Input Set : F:\200.PCUS13 (110084).txt

Output Set: N:\CRF4\08242006\J535164.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:176048 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17654 after pos.:0
L:196412 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19916 after pos.:0
L:485354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52020 after pos.:0
L:552446 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59474 after pos.:0
L:585545 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63151 after pos.:0
L:585560 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63152 after pos.:0
L:713024 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:77314 after pos.:0
L:726494 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:78810 after pos.:0
L:1015526 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:110924 after pos.:0
L:1148723 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:125723 after pos.:0
L:1171733 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:128279 after pos.:0
L:1350821 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:148177 after pos.:0
L:1574747 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:173057 after pos.:0
L:1669073 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:183537 after pos.:0
L:1880408 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:207018 after pos.:0
L:1973024 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:217308 after pos.:0
L:1991170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:219323 after pos.:0
L:2044879 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:225290 after pos.:0
L:2159824 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:238061 after pos.:0
L:2365363 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:260898 after pos.:0
L:2365378 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:260899 after pos.:0
L:2438635 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:269038 after pos.:0
L:2489572 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:274697 after pos.:0
L:2529475 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:279130 after pos.:0
L:2538526 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:280135 after pos.:0
L:2611036 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:288191 after pos.:0
L:2753953 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:304070 after pos.:0
L:2871103 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:317086 after pos.:0
L:2880127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:318088 after pos.:0
L:2979565 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:329136 after pos.:0
L:3007615 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:332252 after pos.:0
L:3044971 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:336402 after pos.:0
L:3093892 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:341837 after pos.:0
L:3183088 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:351747 after pos.:0
L:3353302 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:370659 after pos.:0
L:3367762 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:372265 after pos.:0
L:3446941 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:381062 after pos.:0
L:3462778 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:382821 after pos.:0
L:3468328 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:383437 after pos.:0
L:3489745 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:385816 after pos.:0
L:3537060 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:391072 after pos.:0
L:3683901 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:407387 after pos.:0
L:3761703 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:416031 after pos.:0
L:3783633 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:418467 after pos.:0
L:3942215 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:436086 after pos.:0
L:4055468 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:448669 after pos.:0

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L:4207390 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:465548 after pos.:0
L:4219348 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:466876 after pos.:0
L:4261321 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:471539 after pos.:0
L:4261341 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:471540 after pos.:0